

Increasing HPV vaccination in Colombia

PREVENT
GLOBAL
HPV CANCERS

Case Study

Project objective:	Promote HPV vaccination in Colombia through the implementation of communication strategies and evidence-based messages aimed at key populations.
Leading healthcare organization: Organization responsible for planning and managing projects	EPS SURA
Planning team members:	Leidy Álvarez, Natalia Gómez, Claudia Marín, EPS SURA Communications Department
Key population:	Caregivers of children aged 9-17 years without a record of prior HPV vaccination
Brief project description:	- Between September and October 2025, EPS SURA implemented a nationwide multi-channel communication strategy, based on behavioral economics principles, to promote vaccination against HPV in children and adolescents aged 9 to 17 years who did not have a vaccination record. - From a potential population of 264,481 members, a random assignment was made to two groups: an intervention group, made up of 132,240 people, exposed to sequential messages sent by SMS, WhatsApp, email and social networks; and a control group, of 132,241 people, who did not receive the intervention. - The strategy included medical testimonials on an educational platform, reminders about vaccination days, and a communications campaign designed to raise awareness, strengthen

confidence in the vaccine, motivate attendance at vaccination sites, and reinforce the decision to vaccinate.

- The purpose was to increase HPV vaccination coverage and provide information on the population's response to different channels, messages, and territorial contexts.
- To evaluate the results, vaccination records were monitored from the first week of November 2025 until June 2026.

Project goals:

1. To strengthen the knowledge of parents and caregivers about the human papillomavirus, its associated risks and the benefits of vaccination through messages focused on cancer prevention, vaccine safety and its availability at no cost to the affiliated population.
2. Identify differences in the population's response to the communication strategy, analyzing behaviors according to sex, age, and geographical location, to recognize patterns to guide future public health interventions.
3. Evaluate the performance of different communication channels and times —SMS, WhatsApp, email and social media— to determine which ones generate the greatest mobilization towards HPV vaccination.
4. Measure the impact of the intervention by comparing HPV uptake and vaccination between the population exposed to the communication intervention and the unexposed control group.

Impact of the project by goal

- Of the 264,481 eligible members included in the study, 132,240 were assigned to the intervention group and 132,241 to the control group. HPV vaccination coverage was 24.2% (32,004 vaccinated) in the intervention group, compared to 0.02% (26 vaccinated) in the control group.
- The multichannel communication strategy produced an absolute risk difference of 24.2 percentage points (95% CI: 23.95–24.41), indicating that for every 100 members exposed to the intervention, approximately 24 additional vaccinations were achieved compared to the absence of intervention.

	• The number needed to intervene (NNI) was 4.14 people, which implies impacting approximately 4 members to achieve an additional HPV vaccination. • At the regional level, Antioquia had the highest number of vaccinations (18,615), followed by Atlántico (1,133), Cundinamarca (976), Valle del Cauca (843), Quindío (750), and Risaralda (701). The highest vaccination coverage rates were observed in Boyacá, Caldas, Quindío, Magdalena, and Valle del Cauca. Additionally, vaccination acceptance was higher among women and younger age groups, particularly those between 9 and 11 years old.
Most impactful messages	• The messages were organized into a four-stage communication journey: awareness, motivation, action, and reinforcement. • Content was prioritized on HPV-related cancer prevention, safety and free availability of the vaccine, doctor recommendations, availability at IPS, and specific calls to get vaccinated. • Although the individual impact of each message was not measured, the overall communication strategy contributed to the increase in vaccination observed in the intervention group.
Most impactful channels <i>Which communication channels were most effective in reaching your target audience?</i>	• The strategy used digital channels such as SMS, WhatsApp, email, social media, and educational content with medical testimonials. • Together, these channels made it possible to broaden the scope of the intervention and reinforce the messages at different points in the communication process. This contributed to the increase in vaccination observed in the intervention group. • However, without real-time metrics for delivery, opening, and interaction with messages by channel, it was not possible to independently identify which channel was the most effective. • Therefore, the results are interpreted as the overall effect of the multichannel strategy.

Main achievements attained through the implementation of the project:

- The study generated robust evidence on the impact of sequential messages sent via SMS, WhatsApp, email, and other digital channels to promote favorable health decisions.
- Among the main results, the following stands out: **achieving 24.2% vaccination coverage in the population treated**, equivalent to 32,004 vaccinated children and adolescents. Compared to the control group, the strategy resulted in an absolute increase of 24.18 percentage points in vaccination coverage (95% CI: 23.95–24.41), demonstrating a substantial improvement attributable to the intervention.
- The experience generated applicable knowledge on the use of behavioral economics and digital communication tools to increase vaccination coverage, strengthening the institutional capacity to design effective and scalable population interventions in public health.

Impactful stories/quotes:

“The project transformed a public health need into a concrete prevention action. Through a multi-channel strategy, EPS SURA was able to provide clear and timely information to families, strengthening confidence in the HPV vaccine and making it easier for more children and adolescents to access this protection.”
Project team, EPS SURA

HPV vaccination rates:

The following table allows for a comparison of the vaccination rates observed during the follow-up period after the intervention (November 2025–June 2026) between the intervention group and the control group.

Group	Girls aged 9 to 17			Children aged 9 to 17		
	# total eligible population	# vaccinated during the follow-up period (Nov. 2025–Jun. 2026)	Vaccination rate (#populationvaccinated / # total experimental population)	# total eligible population	# vaccinated during the follow-up period (Nov. 2025–Jun. 2026)	Vaccination rate (# of vaccinated population / # total experimental population)
Control	47,317	10	0.02%	84,924	16	0.02%
Intervention	47,318	12,374	26.15%	84,922	19,630	23.12%

What do this year's rates reveal compared to the previous period?

- During the follow-up period after the intervention, between November 2025 and June 2026, the intervention group achieved a vaccination coverage of 24.2%, compared to 0.02% in the control group.

What factors in the program contributed to the observed variations in vaccination rates?

- The observed variations can be explained by the implementation of a multi-channel and sequential strategy, with messages aimed at raising awareness, reinforcing confidence, reminding people about vaccination days, and facilitating the action of getting vaccinated.
- Other contributing factors included the availability of the vaccine at healthcare providers, its free access, direct calls to attend without prior appointment, and the use of doctor recommendations to reduce doubts and increase the perception of benefit.

Main barriers identified in the implementation of the project:

- The main barrier identified during implementation was the low quality and lack of updating of contact data for a proportion of eligible members.
 - Records were found to have incomplete information, outdated telephone numbers, no email address, or invalid contact information, which limited the effective reach of some of the communication channels used.
 - Additionally, difficulties were identified related to the availability of and authorization for the use of certain contact methods, especially for sending text messages and digital communications. These conditions may have reduced some members' exposure to the full communication process designed by the strategy.
 - One limitation identified during implementation was the absence of real-time metrics on the sending, delivery, opening, and interaction with each message issued through the various communication channels. This limitation prevented accurately attributing the individual impact of each message or channel on the vaccination decision, so the effectiveness analysis focused on the overall effect of the multichannel strategy and not on each communication component independently. However, because it was a randomized study, this impact is reduced.
 - Geographical differences were also observed in the capacity to respond to the intervention, associated with access to digital media, internet connectivity, and other unique regional
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	characteristics, which may have influenced the effectiveness of some communication channels.
Main facilitators identified in the implementation of the project:	• The implementation of the project was facilitated by the availability of a clearly identified and characterized population in institutional databases, which allowed the intervention to be focused on children and adolescents eligible for HPV vaccination. • The existence of a national network of vaccination sites and EPS SURA's operational capacity to coordinate immunization campaigns and activities, facilitated the conversion of the intention to get vaccinated into actual action. Additionally, the technical support of the public health, vaccination, analytics, and communications teams enabled the coordinated design, implementation, and monitoring of the strategy. • Finally, the randomization of the population and the availability of information for monitoring results facilitated the rigorous evaluation of the intervention, generating useful evidence for decision-making and for the scaling of future health promotion strategies.
Project sustainability: <i>Will the project continue within your organization? If so, will it remain the same or expand? How?</i>	• The strategy will continue as part of the institutional actions to promote HPV vaccination at EPS SURA, incorporating the lessons learned from this first phase. • For subsequent implementations, the plan is to adjust and strengthen the messages based on the results observed by age, sex and geography, as well as to work more closely with the communication team to have more specific metrics on sending, delivery, opening, and interaction by channel. • In a second phase, a new communication intervention is planned for those who were part of the control group, who did not receive messages in this first stage, and who remain without a vaccination record. This will allow for a re-evaluation of the strategy's effect on a previously unexposed population, improve the traceability of the channels used, and generate additional evidence to optimize future vaccination efforts.

Images/photographs of the project:

SMS / WhatsApp prior to:

Hello [Name], at EPS SURA there is a free HPV vaccine waiting for your son or daughter aged 9 to 17. It is safe and recommended by medical specialists. Visit your nearest IPS (Health Service Provider) and protect them today.



The images shown below have been modified using AI solely for this case study to present their content in English.

EPS sura  Vaccinate our children against HPV? YES! It helps protect against several types of cancer. 	EPS sura  Is it safe? Yes! It is endorsed by the World Health Organization and the Ministry of Health. 	EPS sura  Where? You only need to go to your nearest healthcare center (IPS). 	EPS sura  A healthier tomorrow, powered by vaccines. 
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EPS | sura 

I chose to get
my daughter
vaccinated against HPV
**because I want a
cancer-free future
for her.**



You can do it too.

A healthier tomorrow, 
powered by vaccines.

epssura.com

EPS | sura 

Did you know that
HPV can cause several
types of cancer, including
in both men and women?

**The vaccine protects
your son or daughter
starting at age 9.**



It's free and safe!

Visit your nearest
healthcare center
**and get them
vaccinated today!**

A healthier 
tomorrow,
powered by vaccines.

EPS | sura

**One dose
today**
ensures
her health for
tomorrow.



At EPS SURA, we want to invite you to vaccinate your son or daughter between **ages 9 and 17 against HPV**. It is safe, free, and available at all our IPS locations.

This vaccine is a barrier against serious diseases such as cervical cancer and other types of cancer.

*Don't wait any longer, **protecting them**
is easier than you think!*

Your decision makes the difference.



**A healthier
tomorrow,**
powered by vaccines.

 National service line
01 8000 519 519

epssura.com

OCTOBER: INFLUENZA AND HPV JOURNEY						
Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
		1	2	3 Social media post – Influenza	4	5
6	7 Social media post – HPV	8 Influencer email	9	10 Influencer SMS	11	12
13 Holiday	14 HPV SMS	15 WhatsApp – Influenza	16 HPV email	17 Video / WhatsApp HPV (organic)	18	19
20 Influenza carousel post HPV carousel post	21 Social media post – HPV	22 Influenza WhatsApp video (organic) HPV SMS	23 General email – Influenza vaccination event General email – HPV vaccination event	24	25 Influenza vaccination event SMS HPV vaccination event SMS	26
27 Social media post – Influenza	28 Influenza email	29 Social media post – HPV	30 Social media post – Influenza	31		